

## Introduction

Total hip arthroplasty (THA) after proximal femoral fixation is a challenging procedure [1-5]. High rates of complications, predominantly periprosthetic fractures, abductor dysfunction, and medical complications, were reported in the largest case series, ~~mainly regarding periprosthetic fractures, abductor dysfunction, medical complications.~~ The clinical results of THAs after femoral fixation were significantly inferior to control groups [1-5]. Specifically, some hardware-related challenges, such as stress shielding, bone holes, infection, and retained screws, are noteworthy. If hardware removal and THA are performed in the same surgical step, pressurization of the cement can be impaired, fractures can occur due to ~~the~~ weak bone and stress concentration, and infections related to previous surgeries cannot be ruled out [1-5]. Thus, a previous preparatory surgery ~~may be desirable, in order~~ to remove the hardware and, when needed, to take tissue samples to exclude septic complications may be desirable. ~~thus, the next~~ possibly making a subsequent THA surgery ~~may be~~ shorter, safer and less demanding [2]. ~~However, in~~ the case of a THA after a previous femoral osteotomy, however, hardware removal was reported ~~to get as~~ troublesome in 24% of ~~the~~ patients [3]. ~~We Herein, present~~ a case of hip osteoarthritis after a proximal femoral osteotomy is presented. The patient was treated with a two-step approach (hardware removal preceding THA). Soon after the hardware removal, an iatrogenic subtrochanteric fracture occurred, which was successfully treated with a primary tapered long-stemmed THA without any additional osteosynthesis.

## Case presentation

The current study met the ethics standards described in the Declaration of Helsinki and Singapore. The ~~the~~ institutional rReview Board (IRB) approved the study, and the patient gave ~~the~~ informed consent for this case presentation.